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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/757,940
Filing Date: January 10, 2001
Appellant(s): HALLIGAN ET AL.

MAILED

APR 25 2007

GROUP 3600

Jon P. Christensen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 18, 2006 appealing from the Office action mailed September 16, 2005.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Application 09/757206

(3) Status of Claims

The statement of the status of claims contained in the brief is substantially correct.

However, the rejection of claims 96-101, 103-110, and 112-118 under 35 USC 112, 1st paragraph as not being supported by a specific asserted utility or a well established utility is *withdrawn*.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct.

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The rejection of claims 96-101, 103-110, and 112-118 under 35 USC 112, 1st paragraph as not being supported by a specific asserted utility or a well established utility is *withdrawn*.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,356,909	SPENCER	3-2002
6,556,992	BARNEY et al.	4-2003
5,136,646	HABER et al.	4-1992

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 96-101, 103-110 and 112-118 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The appellant has identified an invention which requires the user to input information into a computer through the use of a questionnaire with multiple-choice questions wherein many of the questions have answers that are provided by the subjective analysis of the user. Because the answers are subjective, for a single situation, there could be different results based on the subjective analysis and determination of each user. This subjective information would result in a different value depending on the individual users. Thus, for each individual performing the invention, the result would be different and would have a different meaning. Therefore, the invention does not produce a repeatable or concrete result as required by the statute. The users of the invention must conduct a great deal of experimentation on their part in order to use the invention – to the point that the users become the inventor of their own application of the invention rather than the appellant.

Thus, the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to use the invention since the subjective interpretation does not provide a concrete result which can be used by one in the industry other than the person actually entering the information.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 96-101, 103-110 and 112-118 are rejected under 35 U.S.C. 101 because for a claimed invention to be statutory, the claimed invention must produce a useful,

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concrete, and tangible result. "Usefulness" may be evidenced by, but not limited to, a specific utility of the claimed invention. "Concreteness" may be evidenced by, but not limited to, repeatability and/or implementation without undue experimentation.

"Tangibility" may be evidenced by, but not limited to, a real or actual effect

In the present case, many of the answers to the multiple-choice questions in the questionnaire are subjective. Thus, because the answers are subjective, for a single situation, there could be different results based on the subjective determination of the user. Therefore, the appellant's invention is not capable of providing concrete results as required by 35 U.S.C. 101 since it would be difficult for a person to repeat the analysis and determination of another based on the subjective subject matter without undue experimentation.

Furthermore, the claimed invention is not supported by either a credible asserted utility or a well established utility. It is unclear how the specific utility of the claimed invention as described in the disclosure of this application would be useful or tangible to one in the industry. It is unclear how the numerical score value would be used by a person in the industry, i.e., what does the score mean to a person in the industry, especially in view of the fact that any comparison is made by comparing the assigned values with a predetermined threshold value which is not an industry standard value or a mathematically derived standard but rather a value chosen by the user (page 15 of the remarks section to the response). For example, an academic test score of 95 is considered an A unless specifically defined otherwise. What does the numerical score

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value that is derived by this invention mean and to whom does it have a meaning. Is there a threshold value that has a real world meaning?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 96, 103-105, 112-114 and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (US 6,356,909) (hereinafter referred to as Spencer) in view of Barney et al (6,556,992) (hereinafter referred to as Barney).

Regarding Claims 96, 105 and 114:

Spencer discloses computer method, system and program, comprising:

providing a questionnaire of multiple-choice questions (Figures 14, col. 12, line 65 thru col. 13, line 18 - *multiple choice questions*) ;

providing a numerical score value to each of the responses on the questionnaire (col. 12, line 65 thru col. 13, line 18 *multiple choice questions may have a sliding value depending on the answer selected. Each question/selection is given a weight that is used to develop a scorecard*);

accepting responses to the questionnaire through the input device (col. 13, lines 11-18 *individual question responses, Figure 3A – (4) Response database*);

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converting the responses received to a numerical score value (col. 12, line 65 thru col. 13, line 18 *scorecard*).

Spencer does not disclose that the subject matter of the invention is trade secrets or that the questions relate to the six factors for a trade secret of the First Restatement of Torts, or calculating a geometric mean, the sixth root of the product, of the numerical score values to create a single metric, or repeating the program for each of the remaining items to be evaluated or ranking the items in ascending or descending order of the calculated metric.

However, Barney discloses repeating the program for each of the remaining items to be evaluated and ranking the items, wherein the items are patents and other intangible intellectual property assets (*trade secrets*) (col. 5, lines 56-62, col. 6, lines 3-9 *ratings or rankings are generated using a database of information by identifying and comparing various characteristics of each patent to a statistically determined distribution of the same characteristic within a given patent population*, col. 7, lines 51-60 – *ranking in ascending or descending order is inherent in the definition of ranking as admitted by appellant on page 18 or the Remarks*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the ranking of intellectual property assets as taught by Barney into the disclosure of Spencer so as to allow an entity to identify and study relevant characteristics of intellectual property to determine and measure those metrics that are predictive of a possible future event, such as an intangible intellectual property asset being litigated.

Although Barney discloses a rating for patents and other intangible intellectual property assets, neither Spencer or Barney explicitly disclose rating trade secrets or the questions relating to the six factors for a trade secret of the First Restatement of Torts or calculating a geometric mean, the sixth root of the product, of the numerical score value.

However, a geometric mean is old and well known. Geometric mean as defined by the Merriam Webster on line dictionary as:

Main Entry: **geometric mean**

Function: *noun*

: the n th root of the product of n numbers; *specifically*

: a number that is the second term of three consecutive terms of a geometric progression <the *geometric mean* of 9 and 4 is 6>

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Spencer to include a geometric mean that is the sixth root of the product since the appellant has identified six factors for a trade secret, thus the 6th root of the product of 6 numbers to come up with a numerical score value which can be used for comparison purposes when making an analysis of the trade secret.

The fact that the subject matter is about trade secrets or that the questions relate to the First Restatement of Torts is determined to be non-functional descriptive data. The language is not functionally interrelated with the useful acts, structure or properties of the claimed invention. The weighted scoring and ranking would be performed the same regardless of the data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F. 2d

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1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983), *In re Lowry*, 32 F. 3d. 1579, 32

USPQ2d 1031 (Fed. Cir. 1994)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide weighted scoring and ranking of trade secrets because such data does not functionally relate to the steps of the method or the structure of the system and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

Regarding Claims 103 and 112:

Barney discloses assigning the value further comprises assigning numeric values on a scale of one to five or a scale of zero to ten (col. 9, lines 28-37, col. 24, lines 36-49 *ratings are provided on a scale from 1-10*).

Regarding Claims 104, 113 and 118:

Barney discloses wherein generating one or more metrics further comprises comparing the assigned values with predetermined threshold values (col. 6, lines 3-23 *comparing various characteristics of each patent to a statistically determined distribution (threshold) of the same characteristic*).

Claims 97-101, 106-110, 115-117 rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer and Barney as applied to claims 96, 105 and 114 above, and further in view of Haber et al (US 5,136,646) (hereinafter referred to as Haber)

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Regarding Claims 97, 106 and 115:

Neither Spencer or Barney disclose an application fingerprint of the data.

However, Haber discloses creating an application fingerprint of the data (col. 3, lines 50-55).

It would have been obvious to one of ordinary skill in the art to combine the fingerprint as taught by Haber with the scoring and ranking disclosed in Spencer and Barney so that once the scored and ranked information is stored, there is a way to verify the data so that, should the time become a matter for later proof, the established procedure serve as effective evidence in substantiating the fact.

Regarding Claims 98 and 107:

Haber discloses creating the application fingerprint comprises processing the content using a deterministic one-way algorithm (col. 3, lines 29-49).

Regarding Claims 99, 108 and 116:

Haber discloses transferring the fingerprint from a creator to a trusted third party (col. 2, lines 32-40 (outside agency), col. 3, lines 6-9 (*outside time-stamping agency (TSA)*)).

Regarding Claims 100, 109 and 117:

Haber discloses creating a certificate fingerprint from the application fingerprint by the trusted third party (col. 4, lines 22-40).

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Regarding Claims 101 and 110:

Haber discloses transmitting the certificate fingerprint from the trusted third party to the creator of the application fingerprint as a certificate (abstract – *the certified receipt bearing the time data and the catenate certificate number is then returned to the author as evidence of the document's existence*, col. 4, lines 22-40).

Response to Arguments

A. Rejections of Claims 96-101, 103-110 and 112-118 under 35 USC Section 112 for Enablement.

Claims 96-101, 103-110 and 112-118 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

The appellant identifies an invention wherein a questionnaire with six multiple-choice questions is presented to a user via a computer interface, the questions relating to the extent a trade secret meets the six factors of the First Restatement of Torts. The answers to the questions include the subjective analysis of the user wherein the user provides a numerical score value as an answer to the questions. The numerical score values are then multiplied together and the 6th root, there being 6 numerical values for the six questions, is calculated to create a single metric for the trade secret. The steps are repeated for each trade secret and then the trade secrets are ranked according to the calculated metric.

The Examiner asserts that because the answers are subjective, for a single situation, there could be different results based on the subjective analysis and determination of each user. This subjective information would result in different

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numerical score values, and thus different metrics, depending on the individual users. Thus, for a given trade secret, for each individual performing the invention, the resulting ranking could be different and would have a different meaning. Therefore, the Examiner submits that the invention does not produce a repeatable or concrete result as required by the statute not does the invention have a practical application. The users of the invention must conduct a great deal of experimentation on their part in order to use the invention – to the point that the users become the inventor of their own application of the invention rather than the appellant. Appellant has not defined how a user would make an analysis or apply the numerical score values or what the calculated metric value would mean to the user. Thus, the Examiner asserts that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to use the invention.

The appellant identifies the invention as providing documentation, analysis, auditing, accounting, protection and other management relating to an existence, ownership, access and employee notice of a plurality of trade secrets of an organization by providing a questionnaire of six multiple-choice question and eliciting responses as to the extent that a trade secret meets each of the six factors of a trade secret from the First Restatement of Torts, said six factors including (1) the extent to which the information is known outside of the business, (2) the extent to which it is known by employees and others involved in the business, (3) the extent of measures taken by the business to guard the secrecy of the information, (4) the value of the information to the business and its competitors, (5) the amount of time, effort or money expended by the

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business in developing the information and (6) the ease or difficulty with which the information could be properly acquired or duplicated. The appellant states on pages 6 through 7 of the specification that the appellant *may* provide information about the ***estimated values*** of the six factors of a trade secret, ***such as on a 1 to 5 scale***, the ***estimated level*** of the security threat to the trade secret, ***such as in a 1 to 5 scale***, the ***estimated level*** of the security measures taken to protect the trade secret, ***such as on a 1 to 5 scale and other data and information***. However, the Examiner asserts that the appellant does not provide sufficient guidance or direction as to the actual numerical scale being used in the invention or how the scale is to be applied. On pages 17 through 18 of the specification, the appellant states that the accounting system *may* derive a weighted security measure factor for each trade secret and the calculation *may* be made using a logical and mathematical formula. However, the appellant has not provided sufficient guidance and direction as to what the weighted factors are or how they are applied. The appellant discloses on page 23 of the specification that the defendability factors ***may be compared with one or more threshold values*** within the accounting system. On page 24, the appellant discloses that once the values have been assigned under the relevant criteria, the assigned values ***may be*** averaged to provide the relevant metric. Appellant further discloses that, alternatively, the six assigned values ***may be*** multiplied and the sixth root taken of the product. In appellant's invention, the metric obtained using such process may be compared by the user or by the accounting system with a threshold value. Where the metric exceeds the predetermined threshold level, a determination may be made that a protectable trade

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secret exists. (page 24 of the specification). However, the Examiner asserts that the appellant does not provide sufficient guidance or direction as to what the numerical values are, how the values are assigned under the relevant criteria, or what the threshold values are. Appellant discloses on page 27 of the specification that a refinement of this method contained in the preferred embodiment shown may be to characterize the employee exposure with one or more employee exposure factors, **for example, on a 1 to 5 scale**. The specification discloses that the accounting system may define this value by determining the total number of trade secrets to which the employee has been exposed, the total dollar value of trade secrets to which the employee has been exposed, the total defendability of the trade secrets to which the employee has been exposed, **or some other exposure measure**, for each employee. The Examiner asserts that the appellant's disclosure provides generalities and examples but no concrete guidance or direction to enable one skilled in the art to make or use the invention, thus providing no practical application for the user.

In the Appeal Brief, the appellant identifies the invention as a method or apparatus that aggregates user judgment with respect to six necessary component variables for a trade secret into a single variable, thereby condensing the user's judgment into one variable that can be more easily compared, sorted out, and characterized (page 14 of the Appeal Brief). Instead of giving sufficient guidance and direction as to what numerical scale is being used or how the scale is applied, the appellant identifies the invention in general terms, using "*such as*" language, for example, such as a scale from 1 to 5.

The appellant's invention uses questionnaires posing questions pertaining to trade secrets and provides a numerical score value to each of the responses possible on the questionnaire and converts the responses received to the respective numerical score values. This value is used to create a single metric for the trade secret and the program ranks the trade secrets in the order of the calculated metric. It is unclear from the disclosure how the computer would be programmed, without undue experimentation, to provide a numerical score value to each of the responses possible on the questionnaire or to convert the responses received to the respective numerical score values in order to take into account all of the subjective answers which the process entails and further provides no guidance as to how to calculate the metric, much less what this calculated metric means. Although the instant specification is replete with generalizations regarding the various factors to be taken into consideration, it is short on any specific direction or guidance as to actually assigning the numerical score value and converting the responses to the respective numerical score values wherein the metric is calculated.

The appellant states that the Examiner's argument with respect to enablement fails on several levels. On the first level, the appellant asserts that the selection of a user input is not part of the claimed method or apparatus. The appellant states that the essence of the independent claims is a method and apparatus that aggregates user judgment with respect to six necessary component variables for a trade secret into a single variable, condensing the user's judgment into one variable that can be more easily compared, sorted out, and characterized (page 14 of the Appeal Brief). The

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appellant then states that for a given input to the method, the output of the method is deterministic, and therefore concrete.

The Examiner is unclear how the appellant can make the statement that the selection of a user input is not part of the claimed invention. Representative claim 96 clearly claims providing a questionnaire of six multiple-choice questions, providing a numerical score value to each of the responses possible on the questionnaire, accepting responses through the input device in response to the questionnaire, converting the individual responses received to the numerical score values, calculating the geometric mean of the numerical score value to create a single metric for the trade secret, repeating the steps for the plurality of trade secrets, and ranking the trade secrets in order of the calculated metric. Thus, the Examiner asserts that the user's judgment with respect to the six necessary component variables is the input. This input is the numerical score value that is then incorporated into the single metric, which, in turn, is used to rank the trade secrets.

The appellant asserts that the Examiner overstates the subjectivity of the input information. Appellant states that a great deal of research and experience has shown that individuals have little trouble ranking items on a scale of one to five. The appellant asserts that the Examiner's argument would indicate that the GPAs of all students in the United States are subjective and, thus, not concrete.

The Examiner asserts that the appellant fails to understand the Examiner's position. It is the subjective nature of the appellant's input into the computer and the lack of guidance and direction as to the meaning and application of values that raises

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the question of enablement. The Examiner asserts that it is the subjective analysis and judgments in applying undefined values that prevents the invention from producing a practical application without undue experimentation. Moreover, it is not that individuals have little trouble ranking items on a scale of one to five, it is the fact that the scale of one to five has not been defined. What defines a one or a two? What does a one or a five mean? How is the scale to be applied? The appellant states that the "essence of the independent claims is a method or apparatus that aggregates user judgment". The appellant then states that the invention is for "condensing the user's judgment into one variable". The Examiner asserts that it is this subjective input that creates the lack of enablement. Because the appellant's invention involves the subjective analysis of the user, the invention would require undue experimentation by another user - to the point that the users become the inventor of their own application of the invention rather than the appellant.

Appellant asserts a second time that the determination of the answers to the six questions is not part of the claimed invention. The appellant then asserts that even if the determination of answers were part of the claimed invention, the six questions do not present an enablement question since techniques for the resolution of inexact questions are well known in the art of surveys and public policy. Appellant then asserts that the claimed invention is limited to the process of ranking trade secrets based upon grading of the six factors of a trade secret. Since the grading by the user of each of the six factors is outside the claimed invention, the appellant asserts that the rejection is inapposite and should be overturned.

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As set forth above, the Examiner respectfully disagrees with the appellant's assertion that the grading by the user of the six factors is outside the claimed invention and directs the appellant to steps (a) through (e) of representative claim 96.

The appellant further states that Appendix I of the specification, filed with the provisional application upon which this application is based, provides a detailed functional specification of the claimed invention. Appellant states that a detailed functional specification is the standard protocol in the software industry of communicating how a system is to function and how it is to be used. Appellant asserts that the detailed functional specification of Appendix I is believed to provide a clear, concise and comprehensive description that would enable anyone of skill in the art to make and use the invention. Accordingly, the appellant asserts that the rejections based upon enablement are improper and should be overturned.

The Examiner respectfully disagrees with the appellant's assertion that Appendix 1 provides sufficient guidance and direction to enable one skilled in the art to make and user the invention. The Examiner submits that it is the admitted subjective analysis and the lack of concrete, defined scales, numerical score values, and threshold values, and the lack of guidance and direction as how to apply the scales and values that provide the enablement problem. The appellant has not provided direction and guidance as to what the numerical scales are or how the scales are applied. The Examiner submits that Appendix I provides no more guidance than does the appellant's specification. As admitted by the appellant, the answers to the questionnaire are subjective. Because of this subjective analysis, for a single situation, there could be different results based on

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the subjective analysis and determination of each user. This subjective information would result in a different value depending on the individual users. Thus, for each individual performing the invention, the resulting metric would be different, therefore, the list resulting from ranking the metrics would be different and have a different meaning. Furthermore, there is no teaching of a numerical scale, how to apply the values, how to calculate the metric the meaning of the metric.

In conclusion, the Examiner asserts that the rejections based upon enablement are proper and should be sustained for the reasons set forth below.

The nature of appellant's invention requires the subjective analysis as to the extent that a trade secret meets each of the six factors of a trade secret, wherein the six factors come from the First Restatement of Torts. One in the art typically knows and utilizes the six factors as they are set forth in the First Restatement of Torts. However, as appellant asserts in the Appeal Brief (page 19), *judges are instructed by Section 757 of the Restatement of Torts to consider the six factors in adjudicating trade secret disputes and every trade secret litigation includes an analysis by the judge to the extent to which the alleged trade secret meets the six factors*. Appellant further states that attorneys involved in trade secret cases must also perform such analysis in preparing for and litigating these matters. Appellant states that the essence of the independent claims in the present application is a method or apparatus that aggregates user judgment with respect to six necessary component variables for a trade secret into a single variable, condensing the user's judgment into one variable that can be more easily compared, sorted, and characterized (page 14 of appeal brief). Appellant states

that some differences in the evaluations of individual skilled evaluators will always be present in any judgment (page 20 of the appeal brief). The appellant then poses the question of whether the professional judgments of skilled judges, attorneys, and other trade secret professionals are so subjective as to render the invention useless (page 21 of appeal brief).

Thus, from the onset, the Examiner asserts that it is apparent that any analysis as to the extent that an alleged trade secret meets the six factors cannot be reliably and predictably quantified by one skilled in the art in the manner recited in the claims. As set forth above, although there is no subjectivity as to what the six factors are, there is considerable subjectivity as to the analysis and consideration of these six factors, such that each attorney has his/her own analysis/interpretation with a judge providing a final analysis/interpretation. As set forth above, each party performing an analysis of the six factors reaches a different conclusion or result.

Therefore, the Examiner asserts that for appellant's invention to be enabling to one skilled in the art, appellant would need to provide considerable direction and guidance as to how to interpret and analyze the six factors so that the result produced by this analysis would be predictable and repeatable.

Appellant's specification discloses that the means for specifying or characterizing the predetermined criteria used to evaluate a trade secret under each of the six factors is the user, a human being. In the present case, the user is provided with a questionnaire of multiple choice questions relating to the six factors. Many of the answers to the questions are subjective. Thus, the Examiner asserts that no matter

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how exacting the six factors are, the subjective analysis as to these six factors render appellant's invention non-repeatable and non-predictable. As seen above, the lack of direction and guidance provided by appellant as to the meaning of numerical score values, how to apply these value, as to an actual numerical scale to be used, how the scale is applied, or how the factors are weighted would not enable one skilled in the art to make or use the invention with out undue experimentation. Furthermore, once the values have been assigned, appellant's invention uses the assigned values to provide a metric which is compared to a threshold value wherein, if the metric exceeds a predetermined threshold level, a determination is made that a protectable trade secret exists. The Examiner asserts that these unspecified values, assigned in an unspecified way, as seen above, to provide a metric used to make a determination that a protectable trade secret exist render it virtually impossible for one of ordinary skill in the art to make and use appellant's invention without undue experimentation. The Examiner asserts that appellant's disclosure lacks sufficient guidance and direction as to what the threshold values are. Appellant does not set forth explicit ranges or explicit criteria for scores or how to apply the scores. There is not sufficient guidance or direction as to how the calculation is performed. Appellant states that the calculation used is any logical and mathematical formula that may be configured into the accounting system that a company may deem best meets its need (see page 18 of the specification). While the instant specification is replete with generalizations, it is short on any specific direction or guidance as to the actual limitations. All of the claim limitations are elusive due to the subjective and inconcrete nature of the invention,

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thereby casting doubt on the ability of one skilled in the art to which this invention pertains to produce repeatable and predictable results when attempting to analyze individual trade secret scenarios. There is no proof that the subjective determination made in the human mind can be reliably and predictably quantified. The Examiner asserts that one cannot look to the scope of the prior art to resolve or overcome the lack of guidance provided by the appellant. The appellant provides brief descriptions and multiple examples to try to provide guidance as to the numerical scale and how it is applied. However, the appellant has not set forth explicit ranges for the scores, explicit criteria for the scores, how to apply the scores, the equation used to calculate a metric utilizing the scores, the threshold value to which this metric is compared, or a precise scale with precise instructions as how to apply the scale so that one skilled in the art could make or use the appellant's invention so as to produce a concrete, repeatable and predicable result.

Applicant states that the *applicants expect that, with experience, users will come to an understanding of the threshold values that have most meaning within their business environment* (page 26 of the appeal brief). The Examiner asserts that this provides further evidence that the invention is not enabled due to the quantity of experimentation needed to make or use the applicant's invention.

Appellant contends that in ranking items or determining the existence of a trade secret based upon a metric or comparing the calculated metric with a threshold, a precise definition (or means of measuring the units to be used) is not required to perform the ranking or determination or comparison (page 16 of the appeal brief).

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Appellant asserts that the resulting metric calculated using an undefined scale which is applied in an undefined way and calculated by an undefined equation is used to determine if a protectable trade secret exist. The appellant himself states that the ranking is the final result of the claims, not the numerical score that is calculated as an intermediate step (page 16 of appeal brief). However, it is the numerical score that is used to perform the ranking.

Appellant further states that the numerical score is used for ranking the potential trade secret with regard to another potential trade secret based upon the calculated metric and determining that the potential trade secret is a trade secret when the calculated metric exceeds a predetermined threshold value and ranking the plurality of trade secrets in ascending order or descending order of the calculated metric (page 25 of the appeal brief). Appellant contends that the invention allows a skilled evaluator to aggregate his judgments on the six independent factors for each of a portfolio of trade secrets into a list of trade secrets sorted in terms of a single value for each trade secret that incorporates his six judgments. Appellant asserts that the tangible output is the sorted list that reflect the judgments (pages 22-23 or the appeal brief).

The Examiner asserts that when looking at the factors to be consider when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue", appellant's claims are directed to broad concepts defined by examples and generalities, with an infinite variety of possible scales to be assigned in an infinite variety of ways and used in an infinite variety of calculations, as admitted by

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the appellant. The Examiner asserts that the nature of the invention is that of a subjective and inconcrete nature. The Examiner asserts that the prior art does not provide guidance or direction so as to enable one skilled in the art to make or use the invention so that the resulting list would be repeatable and predictable. Moreover, there is no evidence that the quantification of the subjective, inconcrete responses or the resulting metric calculated with an undefined calculation would result in a true representation of whether a protectable trade secret exist. A lack of precise definitions as to scales, application of scales, calculations used, etc., cast doubt on the ability of one of ordinary skill in the art to produce repeatable and predictable results when attempting to analyze the six factors in different trade secret scenarios, by multiple parties. It is not clear how the appellant takes these subjective analysis and converts them to quantifiable elements limited to the realm of objective perceptions. "Results" based on the subjective perceptions are typically non-repeatable and non-predictable and therefore contribute to the lack of enablement in the specification that one of ordinary skill in the art would need to make and use appellant's invention.

B. Rejections of Claims 86-101, 103-110 and 112-118 under 35 USC Section 112 for Utility

This rejection has been *withdrawn*.

C. Rejection of Claims 96-101, 103-110 and 112-118 under 35 USC Section 101.

The Examiner has rejected claims 96-101, 103-110 and 112-118 under 35 USC Section 101 for failing to produce a useful, concrete, and tangible result.

The appellant begins the arguments with the assertion that a discussion of “those skilled in the art” is necessary to frame the discussion under 35 USC Section 101.

Appellant then identifies the invention as a new method and device for the evaluation of trade secrets. Appellant asserts that those skilled in the art would likely include those already experienced in the evaluation of trade secrets by other means, including judges, intellectual property attorneys, and intellectual asset management professionals and would likely not include anyone who is not already well-versed in the evaluation of trade secrets.

Appellant then makes an analogy of a new type of saddle for horse riding and asserts that “those skilled in the art” would be people who already know how to ride a horse with other types of saddles, otherwise the use of the new type of saddle would require “undue experimentation”. Appellant states that clearly those skilled in the art would not include anyone who is not already accomplished in riding a horse.

It appears that appellant is asserting that only those who are already accomplished in riding would know how to use a new type of saddle. The Examiner does not exactly understand the relevance of this analogy and does not find it helpful in understanding appellant’s position as to those skilled in the art.

Appellant then states that judges are instructed by Section 757 of The Restatement of Torts to consider the six factors of a trade secret in adjudicating trade secret disputes and every trade secret case includes an analysis by the judge of the extent to which the alleged trade secrets meet the six factors. Appellant states that attorneys involved in these cases must also perform such analyses in preparing for and

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trying these cases. Appellant then contends that those skilled in the art have no difficulty in determining whether a trade secret meets each of the six factors on a non-numeric basis and that one who cannot reliably make such a determination should probably not be trying trade secret cases and cannot be considered one skilled in the art of evaluating trade secrets. Appellant states that what is new in the present invention is the application of a numeric value to these determinations, to calculate a metric therefrom, and to sort trade secrets based on this metric.

This assertion is confusing to the Examiner in light of the appellant's arguments presented as to the rejections under 35 USC 112, 1st paragraph, wherein the appellant states that the determination of the answers to the six questions is not part of the claimed invention, that the claimed invention is limited to the process of ranking trade secrets based upon grading of the six factors of a trade secret, but the grading by the user of each of the six factors is outside the claimed invention (page 15 of the Appeal Brief). Thus, it is unclear how the novelty of the appellant's invention can be the application of a numeric value to these determinations if they are outside of the claimed invention. The Examiner asserts that clearly these determinations are not outside of the claimed invention and thus are relevant in making any determinations as to the patentability of the claimed invention.

Appellant states that the resulting ranking provides insight into the relative merits of the trade secrets in the listing and the extent to which they meet the legal test. The Examiner notes that the appellant then admits that *[o]f course, some differences in the evaluations of individual skilled evaluators will always be present in any judgment* (page

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20 of the Appeal Brief). The appellant then provides examples of similar situations, such as movie ratings by experienced film critics and student essay papers graded on a five-point scale by skilled professional teachers as evidence for the appellant's position that impartial evaluations show a remarkable degree of consistency. Appellant then ask the question of whether professional judgments of skilled judges, attorneys, and other trade secret professionals are so subjective as to render the invention useless.

The Examiner's answer to the appellantr's question above is that the evaluations that occur in the mind of judges and teachers is subject matter not patentable under 35 USC 101 as being directed to abstract ideas.

Appellant states that the Examiner argument in support of the assertion that the invention contains non-statutory subject matter is that "because the answers are subjective for a single situation, there could be different results based on the subjective determination of the user" and "[t]herefore, the appellant's invention is not capable of providing concrete results." Once again appellant states that the method of coming to the evaluative judgment on each of the six factors is not a part of the claimed invention. Appellant further states that a different method, device, invention or mental process may be used to arrive at a non-numeric quantitative evaluation with regard to each of the six factors and they would also be outside the scope of the claimed invention. The appellant states that the invention is silent on the method used with coming to the evaluative judgment on each of the six factors and many methods could be employed. Appellant states that once these judgments are made, they enter the scope of the claimed invention, by assigning numerical values, calculating the geometric mean, and

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ranking the results. The appellant argues that these results are concrete and reproducible, in that, in a given set of evaluations that are performed outside the scope of the invention, they will always produce exactly the same answer once processed through the steps and apparatus of the claimed invention. The Examiner asserts that even assuming this statement to be true, the appellant has not provided sufficient guidance and direction of how to arrive at the metric or use the metric for the invention to have a practical application with a concrete result.

Appellant further asserts that the Examiner's argument relies upon inclusion of the evaluative process on each of the six factors, which appellant states is not claimed and lies outside the scope of the invention, in order to come to a conclusion that the invention does not provide a concrete result. The appellant asserts that the Examiner's rejection of the claims under 35 USC 101 using this line of reasoning is improper and should be overruled.

The Examiner respectfully disagrees with the appellant's line of reasoning. In a Section 101 analysis, the critical question must be answered: What did the appellant invent? *Arrythmia Research Technology Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1059, 22 USPQ2d 1033, 1038 (Fed. Cir. 1992) (quoting *In re Grams*, 88 F.2d 835, 839, 12 USPQ2d 1824, 1827 (Fed. Cir. 1989)).

Appellant's specification describes the invention as follows:

[0009] In addition to collecting information on the company's trade secrets, an evaluation should be done to determine whether the trade secret is likely to meet the tests applied by the courts. In the United States, Section 757 of the First Restatement of Torts set forth six factors for evaluating the existence of a trade secret to assist the courts in adjudicating trade secret cases. One of the inventions we claim is a method of using the six factors to document,

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weight, and evaluate the existence of a trade secret and measures to protect the trade secret.

[0020] These and other objectives of the system are accomplished by providing a system in which selected data and other information about the trade secret is collected and characterized and entered into a specialized database with certain unique functions. The system includes a method and apparatus for protecting a trade secret. The method includes the steps of applying a plurality of generally accepted legal criteria to the content of the trade secret, assigning a value under each criterion and generating one or more metrics from the assigned values through the use of logical and mathematical processes, thereby allowing the comparison of results with predetermined threshold values.

The step of assigning a value to the generally accepted legal criteria is performed by the subjective analysis of the user as admitted by appellant. The appellant states that the essence of the independent claims is a method and apparatus that aggregates user judgment with respect to six necessary component variables for a trade secret into a single variable, condensing the user's judgment into one variable that can be more easily compared, sorted out, and characterized (page 14 of the Appeal Brief). The appellant has provided no teaching of a "comparison" except for what is known to one of ordinary skill in the area of trade secret law. Furthermore, the Examiner submits that the numerical values used or how they are to be applied has not been defined by the appellant in appellant's disclosure.

An analysis of the appellant's claimed invention as to whether it is statutory or not under 35 USC Section 101 because of this subjective analysis and because of the lack of guidance and direction as to what and how to apply the numerical values is set forth below.

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As the Supreme Court held, Congress chose the expansive language of 35 U.S.C. § 101 so as to include "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). In *Chakrabarty*, 447 U.S. at 308-309, 206 USPQ at 197, the court stated:

In choosing such expansive terms as "manufacture" and "composition of matter," modified by the comprehensive "any," Congress plainly contemplated that the patent laws would be given wide scope. The relevant legislative history also supports a broad construction. The Patent Act of 1793, authored by Thomas Jefferson, defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement [thereof]." Act of Feb. 21, 1793, ch. 11, § 1, 1 Stat. 318. The Act embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." V Writings of Thomas Jefferson, at 75-76. See *Graham v. John Deere Co.*, 383 U.S. 1, 7-10 (148 USPQ 459, 462-464) (1966). Subsequent patent statutes in 1836, 1870, and 1874 employed this same road language. In 1952, when the patent laws were recodified, Congress replaced the word "art" with "process," but otherwise left Jefferson's language intact. The Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man." S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952); H.R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952). [Footnote omitted]

This perspective has been embraced by the Federal Circuit:

The plain and unambiguous meaning of section 101 is that any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be patented if it meets the requirements for patentability set forth in Title 35, such as those found in sections 102, 103, and 112. The use of the expansive term "any" in section 101 represents Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in section 101 and the other parts of Title 35.... Thus, it is improper to read into section 101 limitations as to the subject matter that may be patented where the legislative history does not indicate that Congress clearly intended such limitations.

Alappat, 33 F.3d at 1542, 31 USPQ2d at 1556.

35 U.S.C. § 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter.

Federal courts have held that 35 U.S.C. § 101 does have certain limits. First, the phrase “anything under the sun that is made by man” is limited by the text of 35 U.S.C. § 101, meaning that one may only patent something that is a machine, manufacture, composition of matter or a process. See, e.g., *Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556; *In re Warmerdam*, 33 F.3d 1354, 1358, 31 USPQ2d 1754, 1757 (Fed. Cir. 1994). Second, 35 U.S.C. § 101 requires that the subject matter sought to be patented be a “useful” invention. Accordingly, a complete definition of the scope of 35 U.S.C. § 101, reflecting Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent.

The subject matter courts have found to be outside of, or exceptions to, the four statutory categories of invention is limited to abstract ideas, laws of nature and natural phenomena. These three exclusions recognize that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. See, e.g., *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874) (“idea of itself is not patentable, but a new device by which it may be made practically useful is”); *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 94, 40 USPQ 199, 202 (1939) (“While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure created with the aid of knowledge of

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scientific truth may be.”); Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759 (“steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy . . . describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea’”).

The courts have also held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852) (“A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to be nonstatutory subject matter). Accordingly, one may not patent every “substantial practical application” of an idea, law of nature or natural phenomena because such a patent “in practical effect be a patent on the [idea, law of nature or natural phenomena] itself.” *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

To properly determine whether a claimed invention complies with the statutory invention requirements of 35 USC Section 101, the Examiner must first identify whether the claims fall within at least one of the four enumerated categories of patentable subject matter recited in section 101 (process, machine, manufacture or composition of matter). The appellant’s invention is directed to a method or a process and an apparatus. Thus, appellant’s invention falls within enumerated statutory classes.

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Upon making the determination that the invention is a method or process and an apparatus that fall within enumerated statutory classes, the Examiner must now determine whether the claimed invention falls within one of the Section 101 judicial exceptions, i.e., is the invention directed to laws of nature, natural phenomena or an abstract idea.

Inventions directed to nothing more than abstract ideas (such as mathematical algorithms), natural phenomena, and laws of nature are not eligible and therefore are excluded from patent protection. *Diehr*, 450 U.S. at 185, 209 USPQ at 7; accord, e.g., *Chakrabarty*, 447 U.S. at 309, 206 USPQ at 197; *Parker v. Flook*, 437 U.S. 584, 589, 198 USPQ 193, 197 (1978); *Benson*, 409 U.S. at 67-68, 175 USPQ at 675; *Funk*, 333 U.S. at 130, 76 USPQ at 281. "A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." *Le Roy*, 55 U.S. (14 How.) at 175. Instead, such "manifestations of laws of nature" are "part of the storehouse of knowledge," "free to all men and reserved exclusively to none." *Funk*, 333 U.S. at 130, 76 USPQ at 281.

Thus, "a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter" under Section 101. *Chakrabarty*, 447 U.S. at 309, 206 USPQ at 197. "Likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of gravity." *Ibid*. Nor can one patent "a novel and useful mathematical formula," *Flook*, 437 U.S. at 585, 198 USPQ at 195; electromagnetism or steam power, *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113-114 (1853); or "[t]he

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qualities of * * * bacteria, * * * the heat of the sun, electricity, or the qualities of metals,” Funk, 333 U.S. at 130, 76 USPQ at 281; see Le Roy, 55 U.S. (14 How.) at 175.

The Examiner asserts that the appellant's invention appears to provide a ranking of trade secrets which is an aggregation of the evaluators subjective judgment on six factors converted into respective numerical score values, wherein a geometric mean, the sixth root of the product, of the numerical score value creates a metric used to determine the ranking. Thus, the Examiner asserts the appellant's invention is nothing more than a mathematical formula used to provide a ranking and, thus, is a mathematical expression and, therefore, an abstract idea. As stated above, one cannot patent “a novel and useful mathematical formula.”

However, the evaluation under 35 USC Section 101 does not stop here. While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirements of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.

The Examiner must ascertain the scope of the claim to determine whether it covers either a § 101 judicial exception or a practical application of a § 101 judicial exception. The conclusion that a particular claim includes a § 101 judicial exception does not end the inquiry because “[i]t is now commonplace that an application of a law of nature or

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mathematical formula to a known structure or process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis in original); accord Flook, 437 U.S. at 590, 198 USPQ at 197; Benson, 409 U.S. at 67, 175 USPQ at 675. Thus, “[w]hile a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.” Diehr, 450 U.S. at 188, 209 USPQ at 8-9 (quoting Mackay, 306 U.S. at 94); see also Corning v. Burden, 56 U.S. (15 How.) 252, 268, 14 L.Ed. 683 (1854) (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”).

For claims including such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature, or natural phenomenon. Diehr, 450 U.S. at 187, 209 USPQ at 8 (“application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”); Benson, 409 U.S. at 71, 175 USPQ at 676 (rejecting formula claim because it “has no substantial practical application”).

To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways:

(a). The claimed invention “transforms” an article or physical object to a different state or thing.

(b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The Examiner asserts that the appellant's invention does not transform an article or physical object to a different state or thing. Calculating a metric using a formula on a computer does not transform an article or physical object to a different state or thing.

For eligibility analysis, physical transformation "is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application." AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452. Since the Examiner determined that the claims do not entail the transformation of an article, the Examiner must review the claim to determine if the claim provides a practical application that produces a useful, tangible and concrete result. In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." The claim must be examined to see if it includes anything more than a § 101 judicial exception. If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. If the examiner does not find such a practical application, the examiner has determined that the claim is nonstatutory. In determining whether a claim provides a practical application that produces a useful, tangible, and concrete result, the examiner considers and weighs the following factors:

- 1). Whether the invention produces a "concrete" result?

Usually, this question arises when a result cannot be assured. In other words, the process must have a result that can be substantially repeatable or the process must

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substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable. Resolving this question is dependent on the level of skill in the art.

The Examiner asserts that the appellant's invention is not repeatable or predictable. In the present case, many of the answers to the multiple-choice questions in the questionnaire are subjective. Thus, because the answers are subjective, for a single situation, there could be different results based on the subjective determination of the user. The result of the instant invention is list generated using a metric calculated using the subjective analysis of a human being input as numerical score values, the metric used to rank the trade secrets in the list. In the instant application, the lists are the result of expressions of subjective feelings of a particular individual. Even the same person might generate different rankings at different times for the same trade secret, as when the person might feel differently about the trade secret or the company owning the trade secret. Moreover, since the result is subjective and dependent on a cognitive process, a person can be dishonest about how the person actually thinks the trade secret should be ranked and therefore could generate different values used to determine the ranking. The subjective component of appellant's invention is not amenable to reproducibility of a result. In any event, the result (i.e., the list created by ranking the trade secrets and the metric, thereof) is not concrete. The list produced incorporates the subjective analysis of human beings into a numerical score value

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which in turn is used to calculate the metric which is used for ranking the trade secrets. As for any apparatus claims, the storage of the subjective analysis and the calculation of the metric using the values entered by subjective analysis, does not affect or control how the ranking is performed and the list created. The result is still the presentation of a ranking based on a mental process of a human being. Therefore, the appellant's invention is not capable of providing concrete results as required by 35 U.S.C. 101 since it would be difficult for a person to repeat the analysis and determination of another based on the subjective subject matter without undue experimentation.

Assuming that the calculated metric based on the subjective analysis is concrete, the invention as a whole still fails to provide a practical application because appellant has not provided any teaching as to what the metric means or how it is to be applied to come up with a substantially repeatable result without undue experimentation by a person of ordinary skill. For example, if the subjective metric calculated is a 132, what would this mean to the user?

2). Whether the invention provides a useful result?

The appellant argues that the Examiner assertion that the claimed invention is not supported by either a credible asserted utility or a well established utility is improper and should be overruled. Appellant then identifies the invention as allowing a skilled evaluator to aggregate his judgments on six independent factors for each of a portfolio of trade secrets into a list of trade secrets sorted in terms of a single value for each trade secret that incorporates his six judgments. The appellant points out that the Examiner questions the usefulness of this list to one in the industry. The appellant

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asserts that the Examiner has underestimated the skill of the intellectual property bar and bench in the evaluation of trade secrets using parameters that have been well-established law for over six decades in order to come to the conclusion that this list has not usefulness due to the subjective determination of the user. The appellant contends that these evaluations in practice do not have such variability as to render such a list useless to another user. The appellant further contends that the relatively small variability in these evaluations are inversely proportional to the skill of the user. Appellant states that as with movie ratings, evaluations of trade secrets reflect the skill of the evaluator, and the extent to which a particular evaluation will be considered accurate will depend somewhat on the reviewer. The appellant states that the usefulness of the list will be somewhat dependent on the relative skills of evaluators, but, for evaluators considered skilled in the art, the usefulness of the list will never be zero.

Appellant states that while the Examiner has questioned the usefulness of the produced ranking to a person in the industry, there is no question that the listing is useful to the evaluator himself. Appellant further argues that usefulness to the original evaluator himself is sufficient and therefor the Examiner's rejection of the claims under 35 USC Section 101 based on the argument that the invention fails the usefulness test because it does not provide a specific, credible result which can be used by one in the industry other than the person actually entering the information is improper and should be overruled.

Appellant further argues that as to the utility of the numerical score, the appellant states that the claims do not make any assertion of the utility of the numerical score.

The appellant states that the output of the invention in claims 96, 105, and 114 is a ranking of the plurality of trade secrets. Appellant states that one skilled in the art would clearly know how to use such ranking which is an aggregation of the evaluator's judgment on the six factors applying the legal existence of each trade secret in a trade secret portfolio. Appellant, thus, states that the user's understanding of the numerical score, or lack thereof, does not impact the usefulness of the invention under any of the claims with the possible exception of claims 104, 113, and 118. Appellant argues that claims 104, 113, and 118 require the user to enter a predetermined threshold value.

Once again, the appellant states that the user's judgment as to what this threshold value should be in each case lies outside the scope of the claimed invention. Appellant asserts that with experience, users will come to an understanding of the threshold values that have most meaning within their business environment. The Examiner equates having to have experience to understand the threshold values with undue experimentation. Appellant explains that a ranked listing of the full portfolio of trade secrets within a typical company may run to several thousand items listed on hundreds of pages. Appellant further explains that as the most important trade secrets will lie in the upper portion of the ranked listing, the user can determine a suitable threshold value from an observation of what threshold value will limit the output to a reasonably sized list of the most important items. The Examiner asserts that this admission alone is enough to support a proper 101 rejection for failing to provide useful result in that the

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above determination of a threshold value from an observation of what threshold value will limit the output to a reasonably sized list does not provide a list that has a specific, substantial and/or credible result as the 101 test requires.

Appellant states that this threshold value will depend on many factors, not least of which is the size of the company's trade secret portfolio and the strength of the individual trade secrets therein. Appellant asserts that any requirement that a user provide a threshold value does not effect the usefulness of the invention and the Examiner's rejection of claims 104, 113 and 118 is therefore improper and should be reversed.

The Examiner respectfully disagrees with the appellant's arguments and assertions and sets forth the following reasons.

For an invention to be "useful" it must satisfy the utility requirement of section 101. The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. MPEP § 2107 and Fisher, 421 F.3d at ___, 76 USPQ2d at 1230 (citing the Utility Guidelines with approval for interpretation of "specific" and "substantial").

The Examiner asserts that the utility of the appellant's invention is not specific, substantial or credible and thus does not produce a useful result. Furthermore, the claimed invention is not supported by either a credible asserted utility or a well established utility. It is unclear how the specific utility of the claimed invention as described in the disclosure of this application would be useful to one in the industry. It is unclear how the numerical score value and the calculated metric would be used by a

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person in the industry, i.e., what does the score mean to a person in the industry, how are the numerical score values applied. This is important especially in view of the fact that any comparison is made by comparing assigned values with a predetermined threshold value. However, the values have not been specifically defined nor guidance or direction given as how to apply the values to lead to a specific/credible use. The predetermined threshold value is not an industry standard value or a mathematically derived standard and also is not defined or identified in the specification. For example, it is well established and credible that an academic test score of 95 is considered an A in the real world unless specifically defined otherwise. What does the numerical score value that is used by this invention mean and to whom does it have a meaning? Is there a threshold value that has a real world meaning? What does the metric that is provided by calculating the values with the formula mean to the real world? Furthermore, in *In re Swartz*, the court held that evidence that results were irreproducible was sufficient to show the artisan would "reasonably doubt" the asserted utility of an invention. See *In re Swartz*, 232 F. 3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000).

Thus, the Examiner asserts that the appellant's claimed invention does not provide a practical application of an abstract idea that produces a useful result.

3). Whether the invention provides a tangible result?

The appellant states that the tangible output is a sorted list that reflects the judgments the evaluator provided as input to the invention.

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also *Corning*, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.”

The Examiner asserts that the appellant’s invention does not produce a real-world result or a beneficial effect and thus has no substantial application. The appellant does not teach any practical application of the resulting subjective metric. The invention is directed to a list produced by a mathematical formula calculated using numerical score values representing the subjective analysis of the user. The mathematical formula used to produce the list is an abstract idea that has no practical application. Therefore, the list produced by using a metric to rank trade secrets in which the metric is calculated using numerical score values representing the subjective analysis of the user, the numerical score values representing the subjective analysis being used to calculate the metric, does not provide a practical application of the

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mathematical formula. Therefore, the invention is directed to an abstract idea and the result of the invention is not tangible, but is also an abstract idea.

Thus, the Examiner asserts that the rejection under 35 USC section 101 is correct. The appellant has failed to define the numerical score values, how to apply the numerical score values or the threshold values, thereby, each user left to determine their own values. Because each user is making a subjective analysis and entering the numerical score values based on this subjective analysis, any metric produced using these values and any ranking resulting from the use of the metric would not be concrete since it is hard to reproduce another's subjective determination. Furthermore, since there are no defined values that are repeatable and no defined application of the values, the ranking of the trade secrets would have different meanings and be performed differently by each of the users. Therefore, the invention does not produce a repeatable or concrete or tangible result as required by the statute. Furthermore, the invention does not produce a useful result because a person skilled in the art would not know what the metric and ranking resulting from the metric would mean or how to apply or use the metric and listing without conducting their own undue experimentation.

The Examiner asserts that the appellant's claimed invention does not set forth a practical application of an idea to produce a real-world result. Appellant's invention is not an invention of some practical method or means of producing a beneficial result or effect, and thus does not provide a tangible result.

D). Rejection of Claims 96, 103-105, 112-114 and 118 under 35 U.S.C. 103(a) as being unpatentable over Spencer in view of Barney.

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The Examiner rejected claims 96, 103-105, 112-114, and 118 using Spencer and Barney.

Spencer discloses computer method, system and program that provides a questionnaire of multiple-choice questions (Figures 14, col. 12, line 65 thru col. 13, line 18 - *multiple choice questions*), provides a numerical score value to each of the responses on the questionnaire (col. 12, line 65 thru col. 13, line 18 *multiple choice questions may have a sliding value depending on the answer selected. Each question/selection is given a weight that is used to develop a scorecard*), accepting responses to the questionnaire through an input device (col. 13, lines 11-18 *individual question responses*, Figure 3A – (4) *Response database*), converting the responses received to a numerical score value (col. 12, line 65 thru col. 13, line 18 *scorecard*).

The Examiner asserts that Spencer does not disclose that the subject matter of the invention is trade secrets or that the questions in the questionnaire relate to the six factors for a trade secret of the First Restatement of Torts, or calculating a geometric mean, the sixth root of the product, of the numerical score values to create a single metric, or repeating the program for each of the remaining items to be evaluated or ranking the items in ascending or descending order of the calculated metric.

However, the Examiner combined Barney with Spencer. Barney discloses repeating a program for each of the remaining items to be evaluated and ranking the items, wherein the items are patents and other intangible intellectual property assets (*trade secrets*) (col. 5, lines 56-62, col. 6, lines 3-9 *ratings or rankings are generated using a database of information by identifying and comparing various characteristics of*

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each patent to a statistically determined distribution of the same characteristic within a given patent population, col. 7, lines 51-60) The Examiner notes the appellant's admission that ***ranking in ascending or descending order is inherent in the definition of ranking*** (see the Remarks submitted on February 10, 2005, page 18).

The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the ranking of intellectual property assets as taught by Barney into the disclosure of Spencer so as to allow an entity to identify and study relevant characteristics of intellectual property to determine and measure those metrics that are predictive of a possible future event, such as an intangible intellectual property asset being litigated.

The Examiner also stated that although Barney discloses a rating for patents and other intangible intellectual property assets, neither Spencer or Barney explicitly disclose rating trade secrets or the questions relating to the six factors for a trade secret of the First Restatement of Torts or calculating a geometric mean, the sixth root of the product, of the numerical score value.

However, a geometric mean is old and well known. Geometric mean as defined by the Merriam Webster on line dictionary as:

Main Entry: **geometric mean**

Function: *noun*

: the n th root of the product of n numbers; *specifically*

: a number that is the second term of three consecutive terms of a geometric progression <the *geometric mean* of 9 and 4 is 6>

Thus, the geometric mean of the appellant's six factors for a trade secret would be the sixth root of the product of the six factors.

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The appellant argues that it is not obvious to one skilled in the art at the time of the invention to modify Spencer to include a geometric mean. Appellant states that Spencer forms his scorecards from a summing, or totaling, of weighted values assigned to questionnaire responses. The appellant states that Barney uses statistical regression analysis in generating his ranking criteria and does not disclose the geometric mean in the evaluation of intellectual property. Appellant states that the Examiner does not address why this particular mathematical calculation, out of the tens of thousands of "old and well-known" mathematical function in various sources, including the United States Department of Commerce handbook, *The Handbook of Mathematical Functions*, should be considered obvious in the creation of a ranking criteria for intellectual property. Appellant ask, *why, given the large number of mathematical calculations available, should this calculation be considered an obvious extension of Spencer?* Appellant ask *how obvious is the selection of a single mathematical calculation out of tens of thousand of possibilities, all of which are "old and well-known", as being peculiarly appropriate for the creation of a ranking criteria for trade secrets?* The appellant states that the use of the geometric mean differentiates appellant's invention from the prior art, including Spencer and Barney. However, in the specification, the appellant states:

For example, once values have been assigned under the relevant criteria, **the assigned values may be averaged to provide the relevant metric. Alternatively, the six assigned values may be multiplied and the sixth root taken of the product.** The metric obtained using such process may be compared by the user or by the accounting system (e.g., within a comparator processor) with a threshold value. Where the metric exceeds the predetermined threshold level, a determination may be made that a protectable trade secret exists (paragraph [0097])

Thus, it appears that several methods of obtaining the relevant metric may work equally as well as the geometric means. Furthermore, in the Remarks submitted with the amendment filed on February 10, 2005, appellant, in response to the Examiner's question as to how the one or more metrics are generated responded: "the assigned values may be averaged to provide the relevant metric. Alternatively, the six assigned values may be multiplied and the sixth root taken of the product."

Spencer discloses providing a questionnaire and a scoring and weighting program (col. 3, lines 26-43), wherein a score is automatically tallied by the system to give reviews a preliminary list (col. 4, lines 7-23) and wherein the computer program ranks responses and orders them (col. 8, lines 66-67). The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the reviewing and analyzing method and system disclosed in Spencer to include a geometric mean that is the n th root of the product of n numbers to produce a metric for comparison since any means of tallying a score to arrive at a metric would provide the metric that is used to make a comparison. The Examiner asserts that it is an obvious choice to take a number of values and multiply them together and then divide them by the n th root, this being the actual number of values being multiplied together, to get a metric. As stated above, the assigned values may also be averaged to provide the relevant metric.

The appellant asserts that the Examiner has not properly addressed that the subject matter of the invention is trade secrets and the fact that the questionnaire relates to the six factors of a trade secret from the First Restatement of Torts.

The appellant's invention provides a questionnaire with multiple choice questions, each response to the questions being given a numerical value, wherein a single metric is created using the numerical values and the metrics are then ranked. The Examiner asserts that the scoring of the multiple choice questions and the calculation of a metric value using the scored values and then performing a ranking based on the metric value would be the same regardless of the data presented in the questions. The fact that the subject matter is about trade secrets or that the questions relate to the First Restatement of Torts is determined to be non-functional descriptive data. The language is not functionally interrelated with the useful acts, structure or properties of the claimed invention. The weighted scoring and ranking would be performed the same regardless of the data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F. 2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983), *In re Lowry*, 32 F. 3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Furthermore, Barney discloses repeating a program for each of the remaining items to be evaluated and ranking the items, wherein the items are patents and other intangible intellectual property assets. A trade secret is an intellectual property asset and thus would be encompassed by the items in Barney.

Therefore, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide weighted scoring and ranking of trade secrets because such data does not functionally relate to the steps of the method or the structure of the system and because the subjective interpretation of

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the data does not patentably distinguish the claimed invention. The appellant is essentially providing a questionnaire regarding a defined subject matter, inputting or assigning a subjective analysis of the questions in the questionnaire in the form of numerical score values, calculating a geometric mean by multiplying the numerical score values together and taking the nth root of the product, the n being the number of numerical scores multiplied together, producing a metric and ranking the metric. Thus, the Examiner asserts that the type of data in the questions would be non-functional descriptive data, not functionally related to the steps of the method or the structure of the apparatus.

The Examiner asserts that the Examiner's rejection of the independent claims is proper and should be sustained.

E. Rejection of Claims 97-101, 106-110, 115-117 under 35 U.S.C. 103(a) as being unpatentable over Spencer and Barney as applied to claims 96, 105 and 114 in view of Haber.

The appellant argues that none of the references teach or suggest the use of an application fingerprint. The Examiner respectfully disagrees and directs the appellant to the following in column 3, line 50 through column 4, line 2:

A hashing function provides just such assurance, since at the time a document, such as an author's original work or a composite receipt catenation, is hashed there is created a representative "**fingerprint**" of its original content from which it is virtually impossible to recover that document. Therefore, the time-stamped document is not susceptible to revision by any adversary of the author. Nor is the author able to apply an issued time-stamp certificate to a revised form of the document, since any change in the original document content, even to the extent of a single word or a single bit of digital data, results in a different document that would hash to a completely

different fingerprint value. Although a document cannot be recovered from its representative hash value, a purported original document can nonetheless be proven in the present time-stamping procedure by the fact that a receipt concatenation comprising a true copy of the original document representation will always hash to the same catenate value as is contained in the author's certificate, assuming use of the original hashing algorithm.

Appellant asserts that a prima facie case of obviousness has not been established, and that the Examiner has not provided motivation to combine the references. In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation comes from the Haber reference (col. 1, lines 21-26).

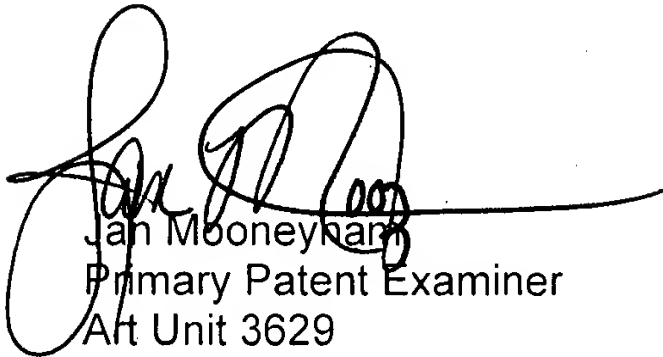
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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Primary Patent Examiner
Art Unit 3629

Conferees:



John Weiss, Supervisory Patent Examiner, Art Unit 3629

Dean Nguyen, Primary Patent Examiner, Art Unit 3629

